Work Order ID 71887

Wednesday, July 13, 2011 11:09:46 AM

Item ID: D3488-041 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Blade Fitting Assembly, LH

Start Date: 7/14/2011 **Start Qty:** 12.00 **Cust Item ID:**

Required Date: 7/28/2011 **Req'd Qty:** 12.00 **Customer:**

Reference:

Run Start

Approvals: **Process Plan:** MF **Date:** 11-07-13 **Tooling:** _____ **Date:** _____

Stop

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Draw Nbr	Revision Nbr
D3488	Rev B

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	DOOSAN LATHE	0.00			RR 11.8.17	12	0		
Doosan	**Memo**	0.00							
Doosan Lathe	1-Turn as per Dwg DSK 101 & Folio FA625□2-Deburr								
110	QC2- Inspect parts off machine FAI/FAIB	0.00			RR 11.8.17	12	0		
QC	**Memo**	0.00							
Quality Control									
120	HAAS CNC VERTICAL MACHINING #1	0.00			1/ 118129 JL	12	0		
HAAS 1	**Memo**	0.00							
HAAS CNC vertical machine #1	1-Machine as per Folio FA625 & Dwg D3488□2-Deburr								

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

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Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** **Stop**

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC2- Inspect parts off machine FAI/FAIB	0.00				12	0		
QC	**Memo**	0.00							
Quality Control									
140	QC8- Inspect parts - second check	0.00				12	0		
QC	**Memo**	0.00							
Quality Control									
150	Chemical Conversion Coat per QSI005 4.1	0.00							
HandFinish	**Memo**	0.00							
Hand Finishing									

11/08/29 SL

11/08/30

12x Ø M-f 11/08/30

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

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Wednesday, July 13, 2011 11:09:46 AM

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Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
Powdercoat	**Memo**	0.00							
Powder Coating	START TIME: 2:40 OVEN TEMPERATURE: 320 FINISH TIME: 3:10								
	M117745								
	12x Ø M-L 11/08/30								
170	QC3- Inspect Part Finish	0.00							
QC	**Memo**	0.00							
Quality Control	12 of M 11/08/10								
180		0.00							
HandFinish	HandFinishing								
Hand Finishing	**Memo**	0.00							
	Install Inserts as per Dwg D3488								
	12 of M 11/09/10								

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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NOTE: Date & initial all entries

Work Order ID 71887

Wednesday, July 13, 2011 11:09:46 AM

Item ID: D3488-041 **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Blade Fitting Assembly, LH

Start Date: 7/14/2011 **Start Qty:** 12.00 **Cust Item ID:**

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Run Start

Stop

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC5- Inspect part completeness to step on W/O	0.00				12	0	09	01
QC	**Memo**	0.00							
Quality Control									
200	Identify as per dwg & Stock Location: FP-6	0.00							
Packaging	**Memo**	0.00							
Packaging									
210	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00							
Quality Control									

12 kh 0 JH 11/09/01

11/9/01 AF

MF 11-09-01

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W/O:		WORK ORDER CHANGES					
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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, July 13, 2011 11:09:43 AM

Work Order ID: 71887

Parent Item: D3488-041

Parent Item Name: Blade Fitting Assembly, LH

Start Date: 7/14/2011 **Required Date:** 7/28/2011

Start Qty: 12.00 **Required Qty:** 12.00

Comments: IPP Rev:A New Issue 06-02-28 JLM
IPP Rev:B As per Rev B 06-03-30 JLM
IPP Rev:C Now On Doosan Lathe JLM Verified BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS7-1032-225		Purchased	No				Each	700.0000		48	MI	11/08/10	
INSERT													

Location	Loc Qty	Loc Code
ST282	700	
100896	100	
111529	300	
111581	300	

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6103-003		Manufactured	No				Each	21.0000		12	ZQ	11.8.17	
Round Billet, Aluminum													

Location	Loc Qty	Loc Code
MAT043	21	
69901	5	
71178	16	

71884 11.1

9 4

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	71887
Description: Blade Fitting, LH / Turning Detail for D3488-1/-2	Part Number:	D3488-1
Inspection Dwg: D3488 / DSK101 **Rev:** B / D		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
Ø2.150	+/-0.005	2.147	✓		R0.02	
Ø2.780	+/-0.005	2.778	✓		R0.15	
Ø3.125	+/-0.010	3.123	✓			
Ø3.346	+/-0.010	3.345	✓			
0.125 x 45°	+/-0.010 x +/-0.1°	.125x45	✓			
8.000	+0.030/-0.000	8.015	✓			
9.250	+/-0.010	9.250	✓			
0.188	+/-0.010	.188	✓			
R0.032	+/-0.010	R.032	✓			
R0.062	+/-0.010	R.062	✓			
Ø0.297	+0.005/-0.001	.300	✓			
Ø0.430	+/-0.010	.432	✓			
0.100	+/-0.010	.100	✓			
0.125	+/-0.010	.130	✓			
2.620	+/-0.010	2.617	✓			
3.500	+/-0.010	3.500	✓			
1.005	+/-0.010	1.005	✓			
Ø0.484	+0.005/-0.001	.485	✓			
1.180	+/-0.010	1.180	✓			
3.150	+/-0.010	3.150	✓			
3.070	+/-0.010	3.070	✓			
R0.063	+/-0.010	R.063	✓			

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	71887
Description: Blade Fitting, LH / Turning Detail for D3488-1/-2	Part Number:	D3488-1
Inspection Dwg: D3488 / DSK101 **Rev:** B / D		Page 2 of 2

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Milling Section						
Ø0.508	+0.006/-0.001	.509	✓		Vern JL-3	
0.750	+/-0.010	.752	✓		H-G	
1.500	+/-0.010	1.500	✓		Vern JL-3	
11.18	+/-0.030	11.181	✓		H-G	
R0.062	+/-0.010	.062	✓		RF	
0.125	+/-0.010	.125	✓		Vern JL-3	
0.590	+/-0.010	.589	✓		H-G	
0.793	+/-0.010	.795	✓		H-G	
1.351	+/-0.010	1.351	✓		H-G	
1.317	+/-0.010	1.315	✓		Vern JL-3	
1.802	+/-0.010	1.804	✓		H-G	

Measured by:	JL	Audited by:	ank	Prototype Approval:	N/A
Date:	11-08-29	Date:	11/08/30	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	
B	08.09.19	Reformat P/O D3488-041	KJ/JLM	
C	08.12.02	Dimension 8.000 removed	KJ/JLM	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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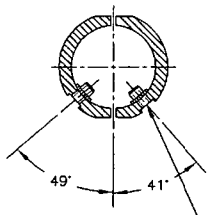
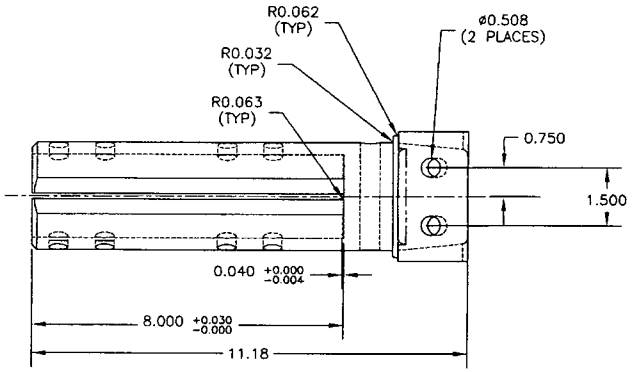
NOTE: Date & initial all entries

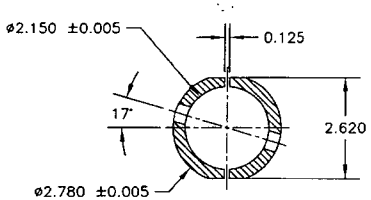


SECTION B–B

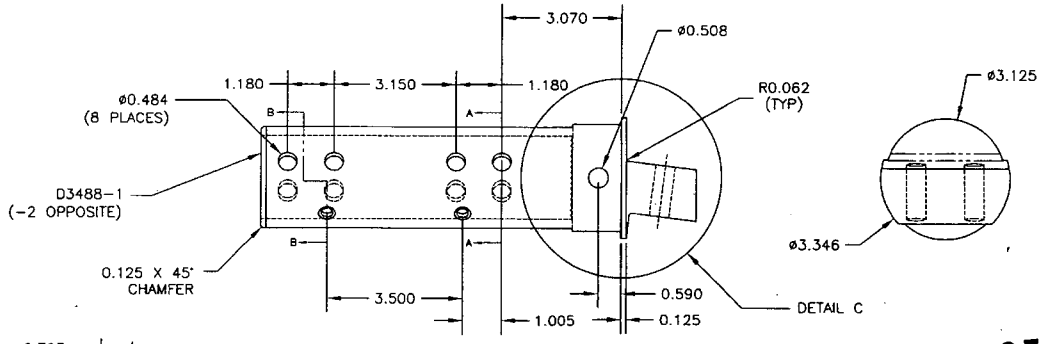
ø0.297
C'BORE ø0.430 x 0.100
INSTALL ALS4–1032–225 (OR AKS4–1032–225
OR ALS7–1032–225 OR AKS7–1032–225)
INSERTS AFTER FINISH
(4 PLACES)

4



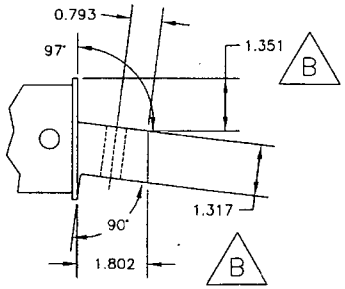


SECTION A–A



D3488–041/–042 BLADE FITTING ASSEMBLY PARTS LIST

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT



DETAIL C

D3488–041 SHOWN (D3488–042 OPPOSITE)

RELEASED
06.03.15 PH
PER 05
ECN #737

#7187

D3488–041/–042 BLADE FITTING

1) MATERIAL: MAKE D3488–1/–2 FROM ALUMINUM 7075–T7351 ROUND BAR PER QQ–A–225/9 (REF. DART MATERIAL SPEC M7075T73R)
2) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
4) INSTALL INSERTS AFTER POWDER COAT
5) ALL DIMENSIONS ARE IN INCHES
6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE

DESIGN PH	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO. D3488	REV. B
DATE 06.03.15		TITLE BLADE FITTING	SCALE 1:3
			SHEET 1 OF 1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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